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*Mail Stop Petition*  
*Commissioner of Patents,*  
*P.O. Box 1450*  
*Alexandria, VA 22313-1450*

X:

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Patent Application of**

**Applicant:** NIU, XI XIAN

**Application Number:** 10/781,221

**Filing Date:** 02/18/2004

**Name of Application:** ACTIVE CARBON-BASED NANTOUBE (CNT) BATTERY

**PETITION TO MAKE SPECIAL**

Mail Stop Petition (to Make Special)

Commissioner for Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Group Director:

This is a petition to make special for expedited examination minus a petition fee under on the ground that said invention titled "CNT BATTERY," developed by Niu, Xi Xian, is an "Active Carbon Nanotube Battery" which materially enhances the quality of the environment and materially contributes to the development or conservation of energy resources 37 CFR §1.102(c). The invention also allows more efficient utilization and conservation of energy resources.

The improved way of using the Active Carbon Nanotube (CNT) Battery is green technology, and is greener than existing batteries in the current market as stated in the patent application itself:

1. The current batteries have long charging time. This can make people buy more batteries to switch between to have a charged one on hand.
2. The current batteries are overweight, and the excess waste is pollution. The common power ratio for lead-based battery is only around 30-40 Wh/Kg. The inconvenience of an overweight battery greatly limits the further application scope and exceedingly reduces the efficiency of common transportation devises like automobiles, trains, airplane, boats, tanks, etc., which in fact are both the main reasons that electrical automobiles cannot be popularized in the recent markets;


3. The current invention is created to overcome said defects and insufficiencies by providing an Active Carbon-based Nanotube (CNT) battery, which can receive large current charging to shorten charging time, and has a high power ratio to reduce the battery weight in order to broaden the battery application scope in modern life. The reduced weight and the increased charging current of this CNT battery dramatically increased the whole power ratio to 300Wh/Kg, while the action power can reach higher than 1000W/Kg. The present invention has both battery and capacitor's characteristics. The capacitor is from 8 uf to 3000 uf, and the battery capacity is from 150mAH to 200AH. The battery action current can reach 20000AH. The weight of the invention is only one eleventh (1/11) and the volume is only one sixth (1/6) comparing to a lead-based battery. The shortest charging time is 90 seconds. It can be widely applied in industrial field, mass transportation, national defense purposes etc.

There are several documents being attached to prove the actual greenness of the technology.

1. The first document is a discharge curve from tests showing that the improved battery has superior performance even though it weighs less and uses fewer materials.
2. The second document is a bilingual newspaper article showing that the CNT battery stores 10 times the power of conventional lead acid batteries.
3. The third document is an exhibition of CNT battery technology by the applicant.

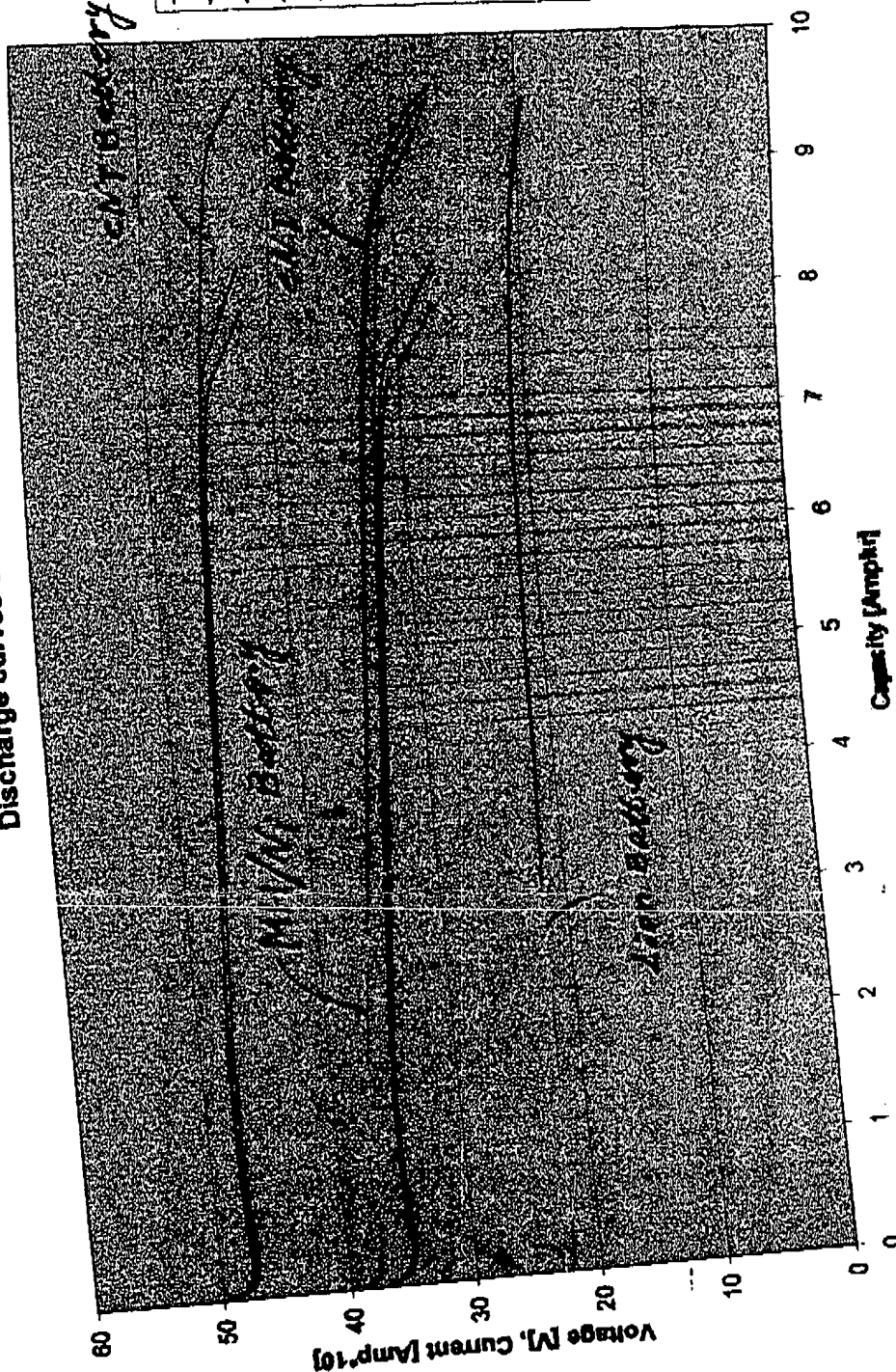
This powerful yet compact invention is green technology, which will greatly reduce the use of gas and other toxic energy sources in current markets. For the above reasons, applicant hereby requests this petition be granted.

Respectfully Submitted,

  
Clement Cheng, Esq.  
Law Offices of Clement Cheng

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Spark battery (CNT.)  
Discharge curves 80 and 170 W load



—	Voltage 170 W
---	Current*10 [amp]
—	Voltage 80 watt
---	Current*10 [amp]
—	80 Watt (2)
—	80 Watt (2)
—	170W(3)
—	170 W (3)
—	170W(4)
—	170W(4)
—	NIMH
—	NIMH

荷兰国家标准局测试



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...in 1999, up 20  
...administrative departments have



mpic team, Chef de Mission Louise Ramsay (R) administrator Stephen Farley (C) chat with an performer following the team's flag raising at the athletes village in Sydney yesterday. The games begin on September 15. (More on P5)

...increased investment, with the  
...added value arising to

## New battery made

Zhou Jianhuan

A NEW "super battery" made of nanophase carbon fibers was recently developed and produced by the SZ Zhongxing Automobile Manufacturing Co. It is said to be the first of its kind ever created.

This significant achievement is regarded as a milestone in the development of electric cars. The corporation, which also produced China's first electric car, is said to have already received 700 million yuan (US\$84.8 million) worth of orders from 150 enterprises both at home and abroad.

Niu Xixian, an expert on electric cars and president of the corporation, said that the fibre used in the manufacturing process is only 30 nano-

meters (nm) in diameter, or 10,000 millimetres (mm).

Fibres are made into strings. This multi strings into coats. This structure enables the new battery to store 10 times the power of conventional lead acid batteries. And how does it behave? An electric car equipped with the new batteries can run 400 km before needing a recharge, and it takes only 15-20 minutes to fully recharge. Niusaid that the battery can be charged 1,000 times.

Niu said that at present only three institutions in the world have worked out the techniques required for the battery, but his corporation is the first to be able to produce it. He is now applying for patents for the product both in China and the United States.

## SZ pioneer reminisces

Wu Yan

"I ARRIVED in Shenzhen in 1949 when I was 17 years old.



profound change to the place," Ma continued. Ma's SZ experience is much older than the city itself. What counts is not the time

...ing-tech in...  
...北科创业高科技孵化器  
...深圳首家台商子弟学校成立



Prisoners return to hero's welcome

...期"囚犯"返朝

Hammering out reform

land auction

7 killed in robbery

Mid-air loss

...

...

...

News 1101111111

2200001-1300000

面。市政府召开常务会议，对保留的审批核准事项逐项进行审核，结果决定再取消审批核准事项385项。整体改革方案将于10月底以形式发布实施。

深圳市委、市政府对深圳湾填海区的规划建设极为重视，要求充分利用好这块难得的滨海地块，为深圳这座滨海城市增添新景观。

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## 展趋势 举行

“信息、材料”专题  
院院士沈昌祥“信息  
感与对策”，工程院院  
学教授、国家863计  
划首席科学家吴澄  
“工业化—企业信息化和  
是提高我国企业竞争  
法”，中科院院士、中  
导体研究所所长郑厚植  
“信息载体量子化对新  
光电子技术的影响”。  
原、环境”专题包括：  
上海生物工程研究  
胜利“生物技术产业  
”，工程院院士、广东  
限公司的专家郑健超  
“通往可持续发展  
”，中科院院士傅家谟  
“发展地区环境质量演  
发展”的若干问题。

## 生院 80人

年，2002年，清华大  
学院计划招收全日制硕  
士（其中100名为清华  
生），博士生30名，博  
士，软件专业第二学  
中一半在深圳本地招  
。今年该院除继续在深  
理硕士（MBA）、工程  
（经国务院学位办批准，  
名额招收公共管理硕士  
法律硕士（JM）各50  
清华大学深圳研究生院  
数将达680人。



外商青睐纳米碳纤维蓄电池 昨日，在市民中心展馆前，最新绿色能源——纳米碳纤维蓄电池受到外商青睐。这种电池比铅酸电池体积小，放电时间长。

本报记者 刘廷芳 摄

## “20 本报

本集团

【本报讯】“2001中国传媒”昨日在京闭幕。由中国报业协会评选的首届中国报业经营创新优秀论文奖亦在此次年会上揭晓，参评的三篇作品全部获奖。集团社长吴松营的《强化优势型、开拓进取》及总经理陈君于报业经营主体多元化》均

## 专场签约21项 我市民企大步进

【本报讯】（记者刘健）昨天，在深圳市总商会举办的深圳市民营企业专场签约仪式上，11家民营企业现场签订21项达15.5亿元人民币。这表明深圳在进军高新技术产业的路上，在总商会签约专场成交的项目，生物工程、新材料等。这些领先世界潮流的尖端技术：影技术开发生产项目；思创集团开发先进电子网络、计算机新技术，西凤集团与重庆市教委签订系统的协议，展现了我市民营企业风貌。

## 海外侨胞喜获丰收

昨在高交会签约16项 总金额16.55亿元

【本报讯】（记者陆云红）昨天，高交会展馆B馆二楼新闻发布厅内回响着广东音乐《喜洋洋》，近百名来深参加高交会的海外华裔侨胞科学家、企业家在这里分享丰收的喜悦：与国内有关企业共签订开发高新技术的合同或协议16项，总金额

16.55亿元人民币。

这些项目涉及生物工程、风险投资、环保等领域。包括：美国国家工程院院士王兆凯教授和深圳市西部高技术创业中心共同组建“深圳兆凯海洋生物药物有限公司”，该项目总投资额1亿元人民币；深圳

市牛满江生物有限公司和深圳技术开发有限公司1亿元人民币中试基地等。市委副秘书长陈君说，高

[Translation]

[Excerpts from a newspaper article]

[Photo]

[Caption] Overseas businessmen noticed carbon nanotube batteries – Yesterday, in front of the Citizen Exhibition Hall, the new green - nanotub batteries were noticed by overseas businessmen. This kind of batteries are smaller than the lead acid batteries and has lost lasting power effect.

Photo was taken by LIU, Tingh Feng, Reporter